

## SECTION VI.—BIBLIOGRAPHY.

## RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

C. FITZHUGH TALMAN, Professor in charge of Library.

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

**Anfossi, G[iovanni].**

La pioggia nella regione Lombarda. Firenze. 1914. 71-294 p. 2 pl. 24 $\frac{1}{2}$  cm. (Dainelli, Giotto. Materiali per la climatologia d'Italia. IV.)

Qualche dato intorno all'effetto utile delle precipitazioni per l'alimentazione dei corsi d'acqua. Firenze. 1914. 4 p. 24 cm. (Estratto dalla Rivista geografica italiana, anno 21, fasc. 3, 1914.)

**Bouches-du-Rhône. Commission de météorologie.**

Bulletin annuel, 1913, 32<sup>me</sup> année. Marseille. 1914. xii, 71, xxxii p. plate. 28 cm.

**Cambridge. University. Solar physics observatory.**

First annual report of the Director, 1913 April 1—1914 March 31. [Cambridge. 1914.] 16 p. 28 cm.

**Ekhholm, Nils.**

Om naturens värmehushållning. Uppsala. 1914. 299-325 p. 21 $\frac{1}{2}$  cm. (Reprint: K. Vetenskapsakademiens årsbok, årg. 12, 1914.)

**Harvard seismographic station.**

Fifth annual report including records, 1 August, 1912-31 December, 1913, by J. B. Woodworth. Cambridge, Mass. 1914. 55-77 p. 24 $\frac{1}{2}$  cm. (Bulletin of the Museum of comparative zoölogy at Harvard college, v. 55, no. 3.)

**Hillers, Wilhelm.**

Theoretische und experimentelle Beiträge zur Aufklärung des dreifachen Bildes einer Luftsiegelung, im Anschluss an photographische Aufnahmen und Beobachtungen einer ständigen Luftsiegelung bei Blankenese. Hamburg. 1914. 55 p. plate. 27 $\frac{1}{2}$  cm. (Abhandlungen aus dem Gebiete der Naturwissenschaften, 20. Band, 2. Heft.)

**Leverett, Frank.**

Surface formations and agricultural conditions of northwestern Minnesota. With a chapter on climatic conditions of Minnesota, by U. G. Purcell. Minneapolis. 1915. vi, 78 p. plates. 22 $\frac{1}{2}$  cm. (Minnesota geological survey. Bulletin no. 12.)

**Löhnis, F[elix].**

Landwirtschaftliche Physik und Witterungskunde. 3. neubearb. Aufl. Leipzig & Berlin. 1914. vi, 140 p. 20 $\frac{1}{2}$  cm.

**Mellish, Henry.]**

The weather of 1914, at Hodsock Priory, Worksop. 8 p. plate. tab. 22 cm.

**Muret, E., & Mercanton, P[aul] L[ouis].**

Les variations périodiques des glaciers des Alpes Suisses, 34<sup>me</sup> rapport, 1913. Berne. 1914. 235-253 p. (Extrait de l'Annuaire du S. A. C., 49<sup>me</sup> année.)

**Mylius, E.**

Wetterkunde für den Wassersport. Berlin. 1914. 108 p. 21 pl. 24 cm. (Yacht-Bibliothek, herausg. von der Redaktion der Zeitschrift "Die Yacht." Band 8.)

**Mysore. Meteorological department.**

Report on rainfall registration, 1913. Bangalore. 1914. xvii, 49 p. plates. maps. 31 cm.

**Radcliffe observatory, Oxford.**

Results of meteorological observations, 1914, vol. 6, part 4. Oxford, etc. 1915. 61-80 p. 25 $\frac{1}{2}$  cm.

**Rahkmanov, G.**

Osnovy meteorologii. [Elements of meteorology.] Tret'e izdanie. Moskva. 1913. 131 p. plates. 24 cm. [Russian text.]

**Speerschneider, C. J. H.**

Om Isforholdene i Danske Farvande i ældre og nyere Tid. Aarene 690-1860. [The state of the ice in Danish waters in former and present times.] Kjøbenhavn. 1915. 141 p. plate. 25 cm. [Danish text, with English summary.] (Danske meteorologiske Institut. Meddelelser Nr. 2.)

**Stonyhurst college observatory.**

Results of meteorological, magnetical, and seismological observations, 1914. Blackburn. 1915. xxi, 52 p. plate. 18 $\frac{1}{2}$  cm.

**Surinam. Departement van den Landbouw.**

Meteorologische waarnemingen, gedaan op de meteorologische stations in de koloniën Suriname en Curaçao, 1913. Amsterdam. [1914.] unp. 24 cm.

**Thoroddsen, Th[orvald].**

An account of the physical geography of Iceland. Copenhagen, etc. 3 p.l., 191-343 p. 26 cm. (The Botany of Iceland, ed. by L. K. Rosenvinge, and Eug. Warming. Part I, [no.] 2.) [Climate, p. 266-291.]

Islands Klima i Oldtiden. (In Geografisk Tidskrift, København, 1914, 22. Bind, Hefte 6, p. 204-216.)

**Union of South Africa. Senate.**

Report from the Select committee on droughts, rainfall and soil erosion. [1914.] xii, 55, xxviii p. 2 maps. 33 $\frac{1}{2}$  cm. (4th sess—1st parliament. Senate S. C. 2—1914.) [Appendix A: Statement showing the rainfall at various stations in the Union, for which fairly long records are available. With maps giving average annual rainfall and seasonal distribution of rainfall.]

**Zi-ka-wei. Observatoire magnétique, météorologique et sismologique.**

Bulletin des observations. Tome 36, année 1910. Météorologie. Chang-hai. 1914. xxxiii, 153 p. plates. 31 cm.

Bulletin des observations. Tome 36, année 1910. Sismologie. Chang-hai. 1914. 18 p. 31 cm.

## RECENT PAPERS BEARING ON METEOROLOGY AND SEISMOLOGY.

C. FITZHUGH TALMAN, Professor in charge of Library.

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the library of the Weather Bureau. The titles selected are of papers and other communications bearing on meteorology and cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled. It shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau.

*American geographical society. Bulletin. New York. v. 47. March, 1915.*

*Huntington, Ellsworth. Terrestrial temperature and solar changes. p. 184-189.*

*American society of civil engineers. Proceedings. New York. v. 41. March, 1915.*

*Meyer, Adolph F. Computing run-off from rainfall and other physical data. p. 549-648.*

*Astronomical society of the Pacific. San Francisco. v. 27. February, 1915.*

*Selga, M. The Ebro observatory, Tortosa, Spain. p. 21-27.*

*Geographical journal. London. v. 45. February, 1915.*

*Davison, Charles. The earthquake in central Italy on January 13. p. 145-146.*

*Indian meteorological department. Memoirs. Calcutta. v. 19. 1914.*

*Harwood, W. A. A discussion of the anemographic observations recorded at Port Blair from September, 1894, to August, 1904. p. 141-189.*

*Harwood, W. A. A discussion of the anemographic observations recorded at Dhubri from November, 1889, to May, 1896. p. 191-214.*

*Journal of geography. Madison. v. 13. March, 1915.*

*Ward, Robert DeCourcy. The European winter and the war. p. 208-215.*

*Nature. London. v. 84. February 25, 1915.*

*Braak, Cornelius. A remarkable dry fog in the East Indian archipelago. p. 699.*

*Nature. London. v. 95. 1915.*

*Whitmell, C. T. The green flash. p. 35-36. (Mar. 11.)*

*Davison, Charles. The Avezzano earthquake of January 13. p. 76-77. (Mar. 18.)*

- Ohio naturalist.* Columbus, O. v. 15. 1915.  
 Smith, J. Warren. Predicting minimum temperatures for frost protection. p. 405-408. (January.)  
 Smith, J. Warren. Efficacy of lightning rods. p. 437-442. (February.)
- Physical review.* Lancaster, Pa. 2d ser. v. 5. February, 1915.  
 Brown, S. Leroy. A new form of resistance thermometer. p. 126-134.
- Lassalle, Leopold J. The diurnal variation of the earth's penetrating radiation at Manila, Philippine Islands. p. 135-148.
- Popular astronomy.* Northfield, Minn. v. 33. March, 1915.
- Pickering, William H. Meteorology of the moon. p. 129-140.
- Royal society. *Philosophical transactions.* London. ser. A. v. 212. A 495. 1913.
- King, Louis Vessot. On the scattering and absorption of light in gaseous media, with applications to the intensity of sky radiation. p. 375-433.
- School science and mathematics.* Chicago. v. 15. March, 1915.
- Pettit, Edison. Height of clouds at sunset. p. 213-216.
- Science.* New York. v. 41. March 12, 1915.
- Greely, A[dolphus] W[ashington]. The meteorology of Adelie Land, Antarctica. p. 395-397.
- Scientific American.* New York. v. 112. March 6, 1915.
- Talman, C[harles] Fitzhugh. Dark days and forest fires. p. 229.
- Scottish geographical magazine.* Edinburgh. v. 31. February, 1915.
- Wallis, B. C. The rainfall of the cotton belt of the United States and its results. p. 71-81.
- Académie des sciences. *Comptes rendus.* Paris. Tome 160. 8 février 1915.
- Bigourdan, Guillaume. Application du comparateur angulaire céleste à la détermination de la réfraction astronomique de sa constante. p. 190-194.
- Archives des sciences physiques et naturelles.* Genève. Tome 39. 1915.
- Quervain, A[lfred] de. Sur les observations sismométriques faites en Suisse. p. 47-58. (15 jan.)
- Schmid, F[friedrich]. Nouvelles observations sur la nature de la lumière zodiacale. p. 149-166. (15 fév.) [Author believes the zodiacal light to be the reflection of solar light in a lens-shaped terrestrial atmosphere.]
- Annalen der Physik.* Leipzig. Band 46. Heft 1. 1915.
- Quincke, G[eorg]. Ionenwolken in feuchter expandierter Luft. p. 39-67.
- Beiträge zur Geophysik.* Leipzig. 13. Band. 5. u. 6. Heft. 1914.
- Scheelite, Hans. Die Erdbeben Deutschlands in den letzten Jahren und ihr Zusammenhang mit der Tektonik. p. 385-404.
- Harboe, E. G. Das isländische Hekla-Beben am 6. Mai 1912. kl. Mitt. p. 173-183.
- Gutenberg, B. Beobachtungen über die Perioden der Erdbeben-vorläufer. kl. Mitt. p. 184-196.
- Meissner, Otto. Über den Zusammenhang der mikroseismischen Bewegung mit meteorologischen Faktoren. kl. Mitt. p. 204-209.
- Hecker, O. Vergleichung der Ergebnisse zweier in paralleler Aufstellung registrierender Horizontalpendelapparate. 3d pag. p. 101-106.
- Szirtes, Siegmund. Das mikroseismische Material des Japan-Bebens am 20. Februar 1914. 3d pag. p. 112-114.
- Szirtes, Siegmund. Das mikroseismische Material des Sangir-Bebens am 14. März 1913. 3d pag. p. 115-121.
- Deutsche Luftfahrer Zeitschrift.* Berlin. 19. Jahrgang. 1915.
- Eckhardt, Wilh[elm] R. Luftfahrt, Wetterkarte und Wettervorhersage. p. 11-13. (27. Jan.)
- Krebs, Wilhelm. Echo aus der Hochatmosphäre. Hörweite des Schlachttendrollers an der Nordseeküste und die Frage des dortigen Seedonners. p. 24. (24. Feb.) [Explains Mist-poeffers as echoes from a boundary plane in the upper atmosphere.]
- Meteorologische Zeitschrift.* Braunschweig. Band 32. Januar 1915.
- Hellmann, Gustav. Über die Bewegung der Luft in den untersten Schichten der Atmosphäre. p. 1-16.
- Maurer, Julius. Einige Ergebnisse unserer höchsten Niederschlagsmässiger im Firingebiet. p. 16-20.
- Wenger, R[obert]. Der Wolkenfreie Raum an der Erdoberfläche. p. 20-22.
- Hann, Julius v. Regenfall auf Korsika. p. 23-25.
- Zum Klima von Tromsö. p. 29-30.
- Maull, Otto. Über Schneedecke in den griechischen Gebirgen. p. 33-36.
- Maurer, Julius. Das Crookesche Radiometer in der meteorologischen Praxis. p. 38-40.
- Witterung und Befinden des Menschen. p. 43-44.
- Meteorologische Zeitschrift.* Braunschweig. Band 32. Februar 1915.
- Maurer, J. Neue Dämmerungsstudien auf Grund langjähriger Zodiakallicht-Beobachtungen von Friedr. Schmid (Toggenburg.) p. 49-56.
- Hann, Julius v. Die jährlichen und täglichen Änderungen in der Richtung und Stärke des Südost-Passats im Atlantischen Ozean. p. 56-61.
- Defant, Albert. Zum täglichen Gang der relativen Feuchtigkeit. p. 61-69.
- Liznar, Joseph. Die wahre thermische Anomalie auf der Erdoberfläche. p. 69-73.
- Hann, Julius v. Neue Beiträge zur Kenntnis der täglichen Periode der Gewitter. p. 73-82.
- Franz Siegel. p. 83-84 [Obituary].
- Dries, Johannes. Über die Entwicklung der europäischen Hochdruckgebiete. p. 89-91.
- Orkan zu Port Amelia (Portugiesisch-Ostafrika) am 12. April 1914. p. 92-93.
- Österreichische Flug-Zeitschrift.* Wien. 9. Jahrgang. Feb. 1915.
- Hörbiger, H. Glazialkosmogonische Beiträge zur Physik der Atmosphäre und der Sonne. p. 41-46.
- Hörbiger, H. Glazialkosmogonische Beiträge zur Erdbebenforschung. p. 47-50.
- Krebs, Wilhelm. Geschützdonner als Echo von der Hochatmosphäre. p. 51.
- Prometheus.* Berlin. Jahrgang 26. Januar 9, 1915.
- Wolf, Karl. Das Wesen der Kugelblitze. p. 229-232.
- Wetter. Berlin. 31. Jahrgang. December 1914.
- Meissner, Otto. Die Windrichtung in Swinemünde im Juni. p. 265-267.
- Thraen, August. Die Niederschlagsverhältnisse auf der nördlichen und östlichen Abdachung des SudetenSystems, dargestellt nach 20 jährigen streng gleichzeitigen Beobachtungen. p. 267-276.
- Naegler, Wilhelm. Witterungseinflüsse beim Schiessen. p. 281-282.
- Rudel, Kaspar. Nächtliche Hagelfälle? p. 282.
- Rudel, Kaspar. Kontrabarometer. p. 283-285.
- Götz, J. Ein Gewitter im Profil. p. 285-286.
- Società sismologica italiana. *Bollettino.* Modena. v. 18. N. 3-4-5. 1914.
- Malladra, A. L'impianto sismico dell'Osservatorio Vesuviano. p. 194-224.
- Oddone, Emilio. Intorno ad alcuni problemi che interessano la vulcanologia e la sismologia. p. 339-374.

## NOTES FROM THE WEATHER BUREAU LIBRARY.

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## THE SINGULAR OF "SASTRUGI."

In the glossary prefixed to "Scott's Last Expedition" (New York, 1913, vol. 1, p. xxiii) occurs the following definition:

*Sastrugus.* An irregularity formed by the wind on a snow plain. "Snow wave" is not completely descriptive, as the sastrugus has often a fantastic shape unlike the ordinary conception of a wave.

The word *sastrugus*, which also occurs in the text of Capt. Scott's diary, is apparently his own back-formation from the familiar plural *sastrugi*, on the hasty assumption that the latter term is Latin or is susceptible of a Latin inflection. This is a curious blunder.

The term *sastrugi* is exceedingly common in current polar literature, where it supplies a name for a snow formation characteristic of wind-swept plains; especially those where the winds tend to blow constantly in one direction, so that the sastrugi, or snow ridges, are more or less permanent and serve to indicate the points of the compass. This characteristic of the snow ridges in northern Siberia was noted nearly a century ago by Baron von Wrangel, and the Russian name for these ridges, *zastrugi*, Germanized to *sastrugi*, was made